

ABSTRACT OF THE DISCLOSURE

A system for the automatic signal recording and for evaluation of the decay behavior of a test object following a mechanical impulse excitation. The system includes a coupling element (3) coupled to sensors (2, 13), which detect oscillations of the test object (24) and which convert the detected oscillations to analog oscillatory impulses. The system is further provided with an amplifier (5) adapting the amplitude of the analog oscillatory impulses, a low-pass filter (6) provided for avoiding aliasing effects, an analog to digital converter (7) converting the analog oscillatory impulses to digital data and an arithmetic unit (8) for oscillation analysis and evaluation of the data. The coupling element (3), the amplifier (5), the low-pass filter (6), the analog to digital converter (7) and the arithmetic unit (8) are combined in a compact mobile unit (1) and are connected in series to one another.